



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,886	10/03/2000	Toshiya Imai	198009US2S	6145

22850 7590 09/08/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

EASTHOM, KARL D

ART UNIT	PAPER NUMBER
----------	--------------

2832

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/677,886

Applicant(s)

IMAI ET AL.

Examiner

Karl D Easthom

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-8 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2832

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Nobuharu (JP 3-208304). Nobuharu discloses the claimed invention at the abstract disclosing a nonlinear zinc oxide varistor with a glass containing lead or PbO as a main ingredient, or with SiO₂ - meeting the amorphous silica element containing lead electrodes and about a 0mm end to end distance. from phenol or epoxy resin coating 160 (polyetherimide) (or thermal plastic or polymer), col. 3, lines 1-15. In claim 7, the electrode necessarily was deposited by one of the methods of transferring or depositing since it is present. In claim 4, the test is met since a ball of a small size can be dropped from 40 mm on the sides or when attached to the sides, where "the falling ball test" does not specify more. Or, since the claimed materials are the same as disclosed, the same properties are inherent.

3. Claims 3-5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuoka et al. Matsuoka discloses the claimed invention at col. 4 and the sole figure with electrodes 0mm from amorphous or crystalline silica coating 2. That is, the silica is one or the other or is amorphous since it is mixed with other ingredients. In claim 3, the thickness is more than 10u at col. 4, lines 45-65. In claim 4, the test is met since a ball of a small size can be dropped from 40 mm on the sides or when attached to the sides, where "the falling ball test" does not specify

Art Unit: 2832

more. Or, since the claimed materials are the same as disclosed, the same properties are inherent.

In claims 5 and 7, zinc, for example, is transferred or deposited at col. 5, lines 1-10.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuharu (JP 3-208304) in view of Seike et al. The claimed invention is disclosed as noted except the electrode thickness. Seike discloses at col. 3, lines 39-47 and Table 1 electrodes 2,3 at the claimed thickness to enhance surge tolerance, and it would have been obvious to form such electrodes for that reason.

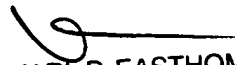
6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka or Nobuharu (JP 3-208304) in view of Meidensha (assignee JP) The claimed invention is disclosed as noted except the glass material. Meidensha discloses at the abstract the claimed phosphate glass which has phosphorous for forming a good glass for a varistor of zinc oxide so that it would have been obvious to use the known glass to obtain a good coating for a similar type varistor.

7. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuharu (JP 3-208304) in view of Matsuoka. The claimed invention is disclosed as noted except the electrode material and the high resistance layer thickness. Matsuoka discloses the thickness for

Art Unit: 2832

the side layer as 10um in order to protect against moisture, col. 2, lines 15-20 at col. 4, lines 60-65, and material at col. 5, lines 1-25, as well known for attachment to leads by solder. It would have been obvious to employ the well known material in order to render the electrode solderable, and to employ the thickness in order to protect against moisture.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl Easthom whose telephone number is (703)308-3306. The examiner can normally be reached on M-Th. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad, can be reached on (703)308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


KARL D. EASTHOM
PRIMARY EXAMINER